

Grade: 4th +
Time: 1 hour
Season: All

Fly Tying

National Science Teaching Standards

- A.** Science as **INQUIRY**
- C.** **LIFE** Science
- D.** **EARTH** Science
- F.** Science in **PERSONAL** and **SOCIAL PERSPECTIVE**

Background Information:

Tying flies is a relaxing activity that can be enjoyed by people of all ages and backgrounds. “Tying” can also be used as a “carrot” to draw young people and even adults into the natural world. Besides learning new skills, first-time tiers become acquainted with the aquatic ecosystem. This brings them into contact with important conservation and environmental issues.

Objectives:

- Students will become familiar with basic equipment needed to tie flies.
- Students will become familiar with basic materials needed to tie flies.
- Students will learn basic tying techniques and knots needed to tie flies.
- Students will learn conservation efforts designed to protect the watershed of the lakes and streams we fish.
- Students will be introduced to the aquatic life forms commonly found in ponds, lakes, and streams.
- Students will tie a fly that mimics local aquatic fauna.

Pre Activity:

- Invite a parent or adult into your classroom to discuss fly tying equipment, material and demonstrate tying a fly.
- Research the life cycle of an aquatic insect.
- Research on the internet the many patterns or recipes of flies that are tied by hand.
- Research the history of fly fishing and tying flies in the library or on the internet.
- Make a class mural of a typical Iowa farm pond or lake depicting the life cycle of aquatic insects and other life forms that fish eat. Have each student draw or make objects to put in the mural. Each student shares what they put in the “pond” and a couple of facts about the objects.

Equipment:

- Fly tying vises, bobbins with thread, scissors, hooks, jigs, and tying materials. (Springbrook Conservation Education Center can provide up to 43 tying kits.)
- Oversized demonstration equipment – hook, vise, thread.
- Examples of flies tied by professionals and other experienced tiers.
- Markers, condiment cups and lids to label and safely store and transport flies.
- Copy of Iowa Fishing Regulations.

Procedure:

1. Provide an overview of water quality and how it effects fish habitat and how tying flies relates to food sources found in ponds, lakes and streams.
2. Explain what the equipment is and how it is safely used to tie a fly. This step includes assembling the vise and tools onto a table if necessary. Left handed vises are available.
3. Explain use of condiment cups and have students write their name on the lid.
4. Show students flies tied by professionals and others.
5. Explain and demonstrate tying a fly.
 - Demonstrate how to correctly insert and secure a fishing hook or jig into the jaws of the fly tying vise.
 - Demonstrate how to use the bobbin and attach the tying thread to the shank of the hook.
 - Demonstrate the half hitch knot.
 - Demonstrate preparing the tail material and tying onto the hook.
 - Demonstrate preparing the body material and tying onto the hook.
 - Demonstrate preparing other materials and tying onto the hook (depends on pattern used).
 - Demonstrate finishing the fly with thread wraps, half hitch knots and removing the completed fly from the vise.
6. The students practice inserting the hook into the jaws, attaching thread, and the half hitch knot.
7. The students tie their own fly.
 - Explain steps as outlined in #5 and assist students as needed.
8. Place tied fly in labeled condiment cup for transport home.
9. Have the students tie a second fly if time permits or instructor demonstrates tying a different style fly.
10. If necessary, dismantle vise and equipment and put into storage containers.
11. Clean area as appropriate.

Post Activity:

- Have students write a letter to a parent, relative, or friend that ties flies. The student should explain the field trip to the Springbrook Conservation Education Center and the fun they had with the fly tying activity! Ask this person in a polite manner if they could help him/her tie fishing flies.
- Students can explore resources to further their development in fly tying. Some of these may include: local, state, and national fly fishing and tying organizations or clubs, local stores that sell fly tying equipment, mail order catalogs, books and magazines, internet web sites, and DNR staff.
- Provide students with the opportunity to use their flies and try to catch fish! Flies may be used as lures with standard fishing equipment as well as with fly rods.
- A fly fishing class is an excellent follow-up to a fly tying class.

Post Discussion:

- Discuss the feeding characteristics of fish caught in Iowa.
- Have students list food chains in Iowa ponds, lakes, and streams.
- How does fishing affect the food chains, the food web, and the balance in this wetland habitat?
- What aquatic life forms can hand tied flies simulate?
- How can the internet be used to research fly tying and related activities?
- How has fly tying changed through history?

Sponsors appear on the next page.

The Springbrook CEC staff would like to recognize and thank the following sponsors of our fly tying program. Please support them whenever possible!!

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Livingston, MT 59047
Ph: 800-356-4052
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www.dan-bailey.com

Hawkeye Fly Fishing Association
P.O. Box 8145
Cedar Rapids, IA 52408
www.hawkeyeflyfishing.com

Here are some other websites that may be helpful in your fly tying pursuits.

www.warmwaterflytyer.com/bench.asp?page=12

Please do not hesitate to contact Springbrook CEC staff if you have fly tying questions.

<http://www.iowadnr.gov/springbrook/activities.html>